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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,339	08/26/2003	Jung-Tao Liu	29250-001071/US	3513

7590 01/25/2007
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EXAMINER

KNOWLIN, THJUAN P

ART UNIT PAPER NUMBER

2614

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/647,339

Applicant(s)

LIU, JUNG-TAO

Examiner

Thjuan P. Knowlin

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 08/26/03.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 10 is objected to because of the following informalities: In claim 10, at the end of line 2, there is a ".", and at the end of line 3, there is another "." This is improper format for a claim. Appropriate correction is required.

Claim Rejections – 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-17, 19, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Naim et al (US Patent Application, Pub. No.: US 2002/0093953 A1).
3. In regards to claims 1 and 20, Naim discloses a method of transmitting control signals (See Abstract) in a communication network (See Fig. 1 and wireless system 10), comprising: transmitting control signal data related to scheduling for uplink transmission of packet data over a single control channel, the single control channel configured based on a transmission mode (See pg. 1, paragraph [0005]; pg. 1, paragraph [0012] – [0013]); and pg. 2, paragraph [0025]).

4. In regards to claim 3, Naim discloses the method, wherein the control channel carries different control signal data based on the transmission mode (See pg. 2, paragraph [0025] – [0026]).
5. In regards to claims 4 and 12, Naim discloses the method and control channel, wherein the scheduling mode specifies that users transmit on the uplink, start times for the user and duration of uplink transmission (See pg. 2, paragraph [0027]).
6. In regards to claims 5 and 13, Naim discloses the method and control channel, wherein transmitting control signal data further includes transmitting one or more of, transport format data, transport block size data, HARQ channel ID data and an indicator indicating whether data carried on a corresponding data channel is a new packet or a re-transmission of a previous packet, if the transmission mode is a rate-controlled transmission mode (See pg. 1, paragraph [0016] and pg. 2, paragraph [0026]).
7. In regards to claims 6 and 14, Naim discloses the method and control channel, wherein the rate-controlled mode specifies an allowed data rate for a user, the user transmitting autonomously, subject to the allowed data rate (See pg. 2, paragraph [0027]).
8. In regards to claims 7, 11, and 15, Naim discloses the method and control channel, wherein transmitting control signal data further includes transmitting one or more of medium access control (MAC) buffer status data, pilot transmit power data and data related to priority of a packet in the MAC buffer, if a user is configured in a reporting mode (See pg. 3, paragraph [0032]).

9. In regards to claims 8 and 16, Naim discloses the method, and control channel wherein the user transmits the control channel in the reporting mode when the user is neither scheduled for uplink transmission nor transmitting autonomously while subject to an allowed data rate for uplink transmission (See pg. 3, paragraph [0032]).

10. In regards to claims 9 and 17, Naim discloses a control channel for signaling control information related to scheduling a user for uplink transmission of packet data in a communication network, comprising: at least one sub-frame adapted to carry control information that is dependent based on the transmission mode the user is in for scheduling an uplink transmission from the user to the network (See pg. 1, paragraph [0005]; pg. 1, paragraph [0012] – [0013]); pg. 2, paragraph [0025]; and pg. 3, paragraph [0032], lines 9-22).

11. In regards to claim 10, Naim discloses the control channel, wherein the sub-frame is comprised of a plurality of slots, each slot containing a plurality of fields of control information that differs based on the transmission mode of the user (See pg. 2, paragraph [0027] and pg. 3, paragraph [0032], lines 7-16).

12. In regards to claim 19, Naim discloses the control channel, wherein the at least one sub-frame has a transmission time interval adapted to be changed based on a desired control channel design, and wherein the number of fields within a given slot of the sub-frame remains constant for any given transmission time interval (See pg. 2, paragraph [0027] and pg. 3, paragraph [0032]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Naim et al (US Patent Application, Pub. No.: US 2002/0093953 A1).

14. In regards to claim 18, Naim discloses all of claim 18, except wherein the at least one sub-frame has a 2 ms transmission time interval. Naim, however, discloses a range or time interval for at least one sub-frame (See pg. 1, paragraph [0027] and pg. 2, paragraph [0032]). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to incorporate this feature within the system, as a way of further indicating a specific transmission time interval.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Beming et al (US 6,236,646) teach a packet data communications scheduling in a spread spectrum communications system. Dam et al (US 6,771,987) teach a method and apparatus for uplink scheduling.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thjuan P. Knowlin whose telephone number is (571) 272-7486. The examiner can normally be reached on Mon-Fri 8:30-5:00pm.

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17. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar can be reached on (571) 272-7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

18. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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